# TA-1055

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

# INTEGRATED STEREO AMPLIFIER

## SPECIFICATIONS

### POWER AMPLIFIER SECTION

**Dynamic power:** 70 watts, both channels operating; 8 ohms
90 watts, both channels operating; 4 ohms

**Continuous RMS power output**
**[Rated Output]:** At 1 kHz
28 watts per channel, 8 ohms
35 watts per channel, 4 ohms
23 watts per channel, both channels operating, 8 ohms
27 watts per channel, both channels operating, 4 ohms

**Power bandwidth:** 10 Hz to 40 kHz, IHF

**Harmonic distortion:** Less than 0.5 % at 1 kHz rated output

**IM distortion:** Less than 0.5 % at rated output

### PREAMPLIFIER SECTION

**Frequency response:** MIC, 20 Hz to 20 kHz $^{+0}_{-3}$ dB
PHONO, RIAA curve ± 1 dB
TAPE −1, TAPE −2, TUNER, AUX, REC/PB (input) } 10 Hz to 60 kHz ± 3 dB

**Input sensitivity and impedance:**
MIC, PHONO } 2 mV 47 k
TAPE −1, TAPE −2, TUNER, AUX, REC/PB (input) } 250 mV 50 k

**Signal output and output impedance:**
REC OUT 250 mV 10 k
REC/PB 30 mV 82 k

### GENERAL

**Power consumption:**
Approx. 115 W (Canada Model)
Approx. 70 W (USA Model)
Approx. 165 W (AEP, UK and E Model)

**Power requirement:**
120 V ac (USA and Canada Model)
110, 127, 220, 240 V ac (AEP, UK and E Model)

**Dimensions:**
410 (w) x 120 (h) x 280 (d) mm
16 1/8 (w) x 4 3/4 (h) x 11 1/8 (d) inches

**Net weight:** 6.2 kg (13 lb 9 oz)

**Shipping weight:** 8.6 kg (18 lb 13 oz)

SONY®

SERVICE MANUAL

716

TA-1055

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**Note: Applicable Serial No.**

USA Model . . . . . 800,001 and later
Canada Model . . . 700,001 and later
AEP Model . . . . . 500,001 and later
UK Model . . . . . 600,001 and later
E Model .... . . . . 400,001 and later

# SERVICING NOTES

## 1. Cautions on handling IC's

a. Excessive heat may destroy an IC. Never re-install a used IC.

b. Check the related components for defects before replacing the IC.

c. When installing new IC's, do not apply excessive heat. Solder quickly while holding a wet rag on the heat-sink tab as shown in Fig. A.

d. Do not short adjacent IC leads when performing electrical checks as this might damage the IC.

e. Always solder the IC heat sink to the printed circuit board to avoid damage.

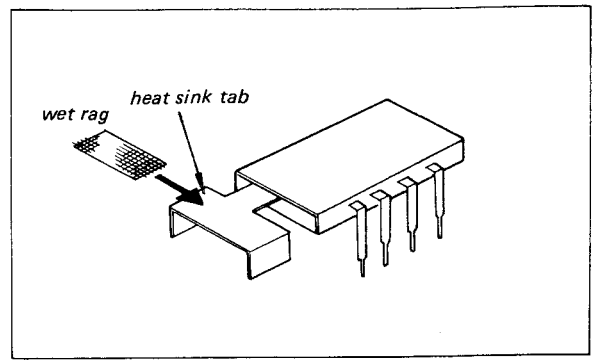



*Fig. A. IC installation*

## 2. Power amplifier adjustment

No adjustment is required.

## 3. Power transistor replacement

When replacing the power transistor, apply a coating of a heat-transferring grease to both sides of the mica insulator. Any excess grease squeezed out when the screw is tightened should be wiped off.

## 4. Nylon rivet removal

a. To remove the nylon rivet, push its end with a tweezers as shown in Fig. B.

b. To reinstall the rivet, insert the flared part into the opening first, then push its head as far as it will go.

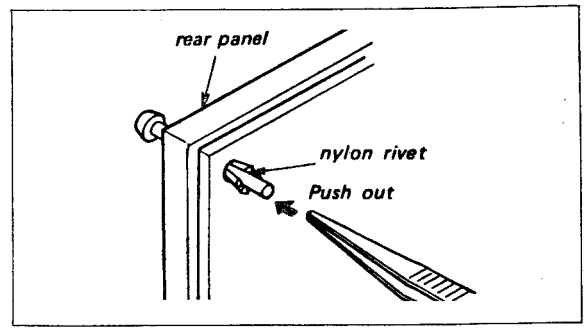



*Fig. B. Nylon rivet removal*

5. This set uses bonded parallel lead wires shown in Fig. C. Refer to the lines stenciled on them when performing electrical checks.

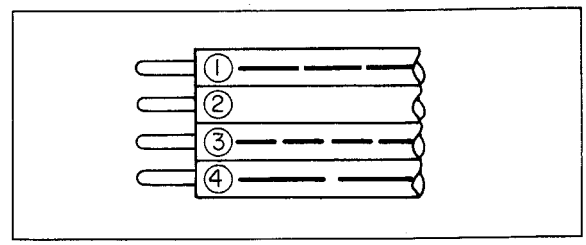



*Fig. C. New lead wires*

# SECTION 1
# TECHNICAL DESCRIPTION

## 1-1. SPECIFICATIONS

### Power Amplifiers Section

| | |
|---|---|
| Dynamic power: | 70 watts, both channels operating; 8 ohms<br>90 watts, both channels operating; 4 ohms |
| Continuous RMS power output (Rated output): | At 1 kHz<br>28 watts per channel, 8 ohms<br>35 watts per channel, 4 ohms<br>23 watts per channel both channels operating, 8 ohms<br>27 watts per channel, both channels operating, 4 ohms |
| Power bandwidth: | 10 Hz to 40 kHz, IHF |
| Harmonic distortion: | Less than 0.5 % at 1 kHz rated output |
| IM distortion: | Less than 0.5 % at rated output |

### Preamplifier Section

| | |
|---|---|
| Frequency response: | MIC, 20 Hz to 20 kHz $^{+0}_{-3}$ dB<br>PHONO, RIAA curve ± 1 dB<br>TAPE - 1, TAPE - 2, TUNER, AUX, REC/PB (input): 10 Hz to 60 kHz ± 3 dB |
| Input sensitivity and impedance: | MIC, PHONO: 2 mV 47 k<br>AUX, TUNER, TAPE - 1, TAPE - 2, REC/PB (input): 250 mV 50 k |
| Signal output and output impedance: | REC OUT 250 mV 10 k<br>REC/PB 30 mV 82 k<br>(output) |
| Signal-to-noise ratio: | MIC, greater than 65 dB (weighting network "B")<br>PHONO, greater than 70 dB (weighting network "B")<br>AUX, TUNER, TAPE - 1, - 2, REC/PB (input): greater than 90 dB (weighting network "A") |
| Tone controls: | BASS ± 10 dB at 100 Hz<br>TREBLE ± 10 dB at 10 kHz |
| Filters: | HIGH, 6 dB/oct above 5 kHz |
| Loudness control: | + 10 dB at 50 Hz, + 3.5 dB at 10 kHz (volume control attenuation: 30 dB) |

### General

| | |
|---|---|
| Power consumption: | Approx. 115 W (Canada Model)<br>Approx. 70 W (USA Model)<br>Approx. 165 W (AEP, UK and E Model) |
| Power requirement: | 120 V ac (USA and Canada Model)<br>110, 127, 220, 240 V ac (AEP UK and E Model) |
| Dimensions: | 410 (w) x 120 (h) x 280 (d) mm<br>16⅛ (w) x 4¾ (h) x 11⅛ (d) inches |
| Net weight: | 6.2 kg (13 lb 9 oz) |
| Shipping weight: | 8.6 kg (18 lb 13 oz) |

## 1-2. CIRCUIT DESCRIPTION DIGEST

The following description might help your repair work. Since stages are listed by transistor or IC reference designation, refer to the block diagram on page 5 and schematic diagram on pages 13 and 14.

### Preamplifier (IC101)

This amplifier increases the signal level provided by phono cartridge or other signals to the level required at the input of the following buffer amplifier, and also performes proper equalization. Fig. 1-1 shows that the preamplifier operates both as phono equalizer and flat amplifier corresponding to the selected feedback loop. Note that IC101 contains two identical low noise amplifier chains and bias circuit. This also requires two power supply which are same but oppositely poled. The IC101 block diagram is shown in Fig. 1-2.

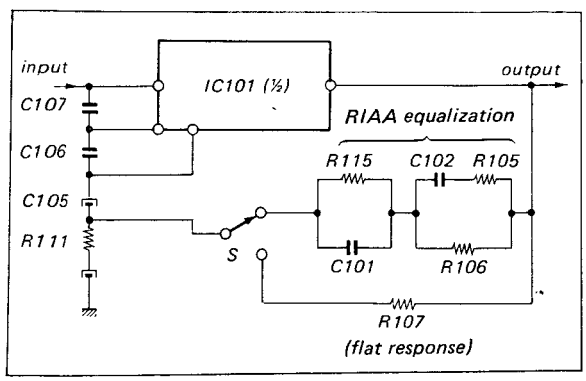



*Fig. 1-1. Simplified preamplifier circuit*

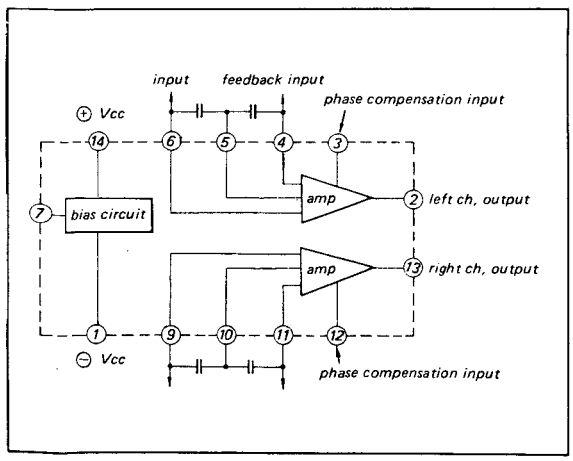



*Fig. 1-2. IC diagram*

### LOUDNESS Circuit

R117, C113, C115 and R118 form a loudness circuit and compensate for the characteristics of the human ear which vary according to the loudness of the sound being heard. When LOUDNESS switch is ON and the VOLUME control is set for 30 dB attenuation, the frequency response is changed as shown in Fig. 1-3 regardless of the tone control function.

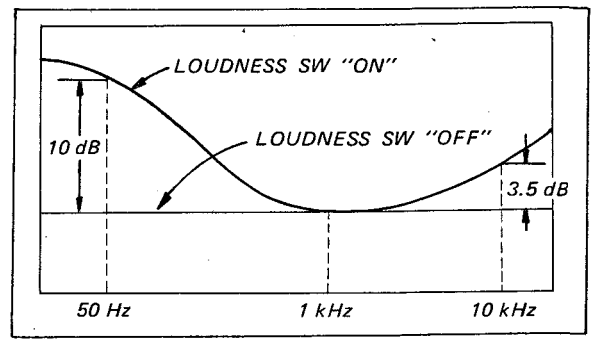



*Fig. 1-3. Loudness circuit response*

### TONE CONTROL Circuit

Referring to Fig. 1-4, the tone control circuit consists of tone control network and power amplifier. This is basically same as the conventional negative feedback type tone control circuit as the power amplifier output is fed back to the input circuit through the tone control network.

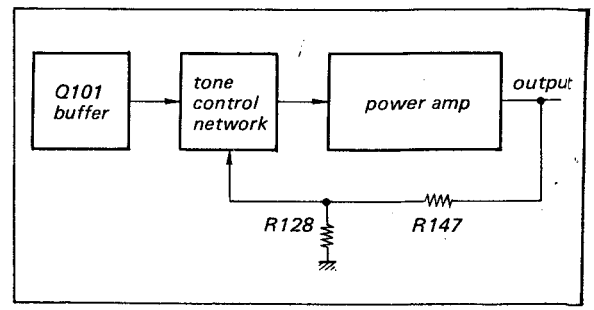



*Fig. 1-4. Tone control circuit*

### Power Amplifier (Q102 ~ Q109)

[Preamplifier Q102, Q103]

Q102 and Q103 form a paraphase amplifier but signal output is extracted from the collector circuit of Q102. This circuit has various advantages in direct-coupling systems. One is high stability despite temperature variations and another is high input impedance without reducing the amplifier gain. The ac output appears across load resistor R132 (2.2k) in the collector circuit. An emitter decoupling circuit is formed by the emitter-base resistance of Q103, R149 and C123 in the base circuit of Q103.

[Thermal compensation and noise suppressor (D101)]

As all the stages are directly coupled, dc stability is required. The negative temperature coefficient of D101 provides thermal compensation for the following driver stage. It also acts as a noise suppressor to reduce the popping noise due to unbalanced current flow in the following stages when the power switch is turned off.

[Driver (Q104)]

Though this stage is a conventional flat amplifier, it determines the output voltage swings because the following stages are basically emitter-followers. The ac load resistor for this stage is R135.

[Dc bias supply (Q105)]

Q105 is biased into heavy conduction and operates as a small resistance providing the necessary forward bias on the two cascaded emitter-followers. This circuit has the advantage of stable operation even at high power output levels.

[Complementary (Driver) Q106, Q107]

These transistors operate as emitter-followers to provide the current swings demanded of the output stages and also provide the necessary phase inversion to drive the power-output stages in push-pull. Phase inversion is performed by using PNP and NPN type transistors.

[Power transistors (Q108, Q109)]

The output transistors Q108 and Q109 are connected directly to a power supply of about ± 30 V. Q108 supply power to the load during positive half cycles and Q109 operate during negative half cycles. As all the stages are directly coupled and designed to obtain zero potential at the output terminal, the large couping capacitor at the output (which may cause power reduction and frequency distortion at low frequencies) is eliminated.

### Power Supply

[Rectifier (D301 ~ D304)]

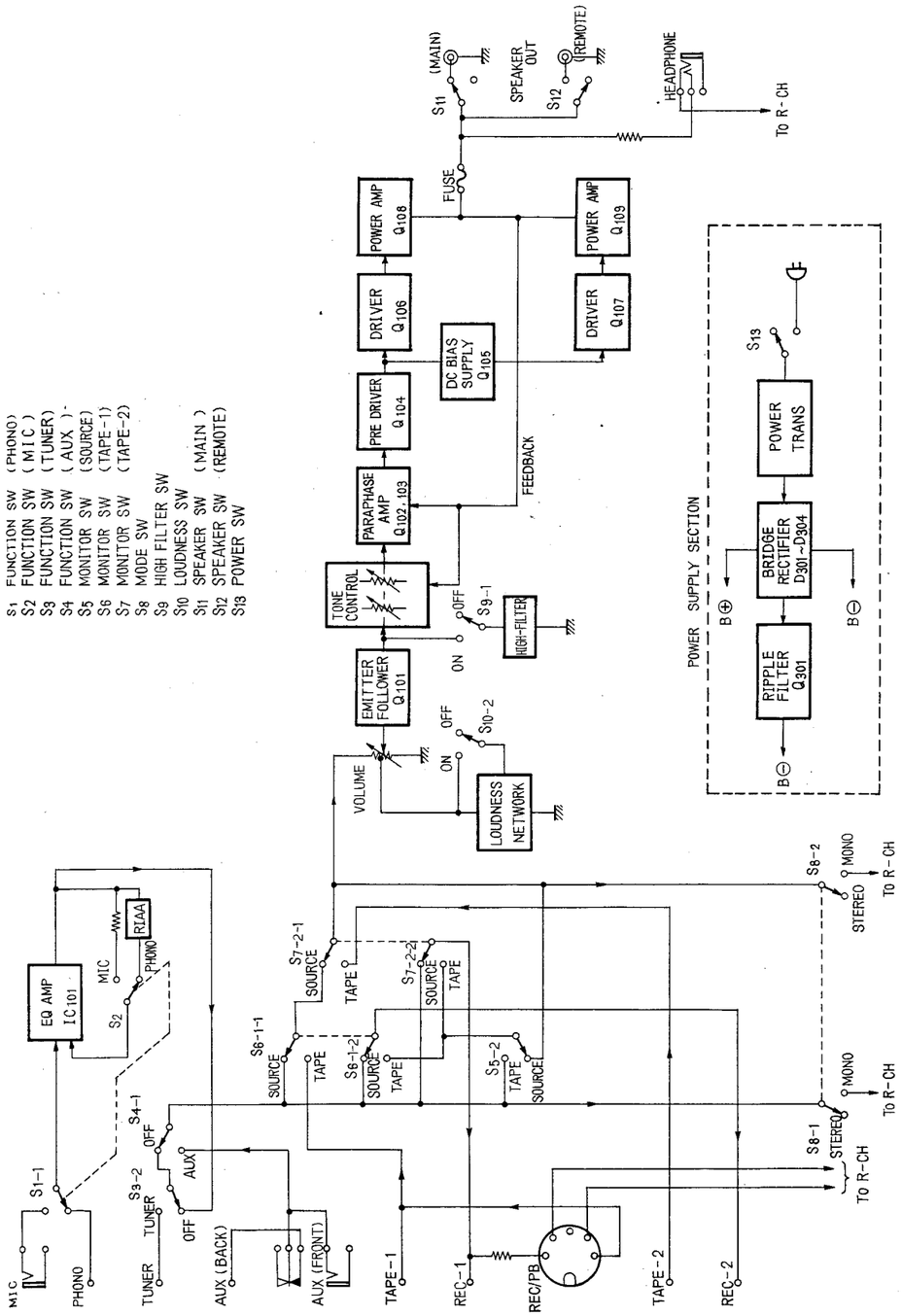
A full-wave bridge rectifier and centertapped transformer provides positive and negative dc power supplies for the power amplifier.

[Ripple filter (Q301, R303, C308)]

These components reduce the ripple voltage in the negative dc power supply for buffer amplifier and driver stages of the power amplifier section to an extremely-low-value.

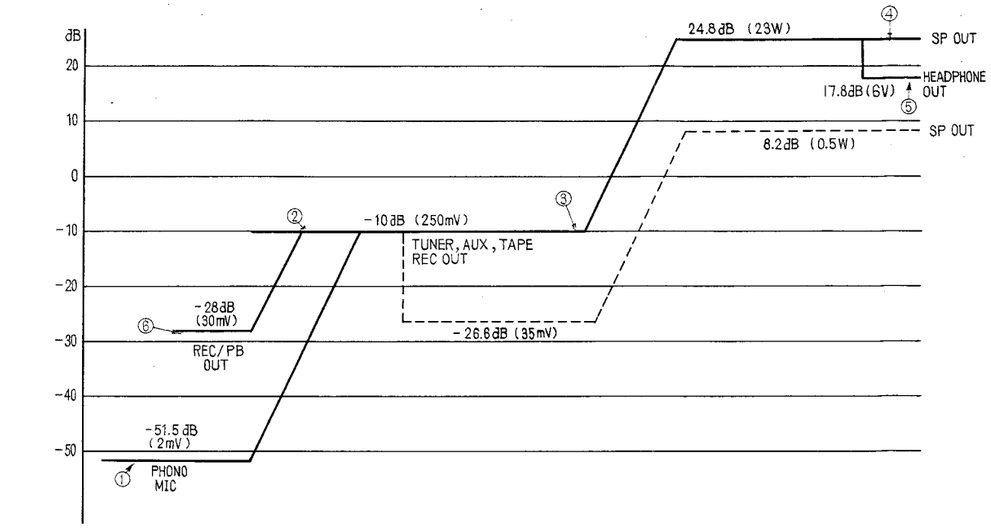
## 1-3. BLOCK DIAGRAM

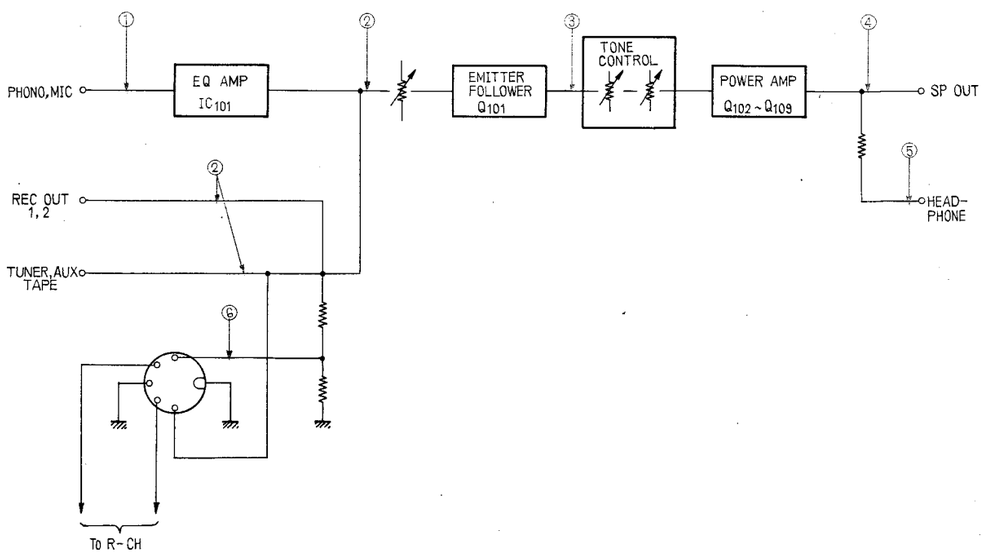
S1 FUNCTION SW (PHONO)
S2 FUNCTION SW (MIC)
S3 FUNCTION SW (TUNER)
S4 FUNCTION SW (AUX)
S5 MONITOR SW (SOURCE)
S6 MONITOR SW (TAPE-1)
S7 MONITOR SW (TAPE-2)
S8 MODE SW
S9 HIGH FILTER SW
S10 LOUDNESS SW
S11 SPEAKER SW (MAIN)
S12 SPEAKER SW (REMOTE)
S13 POWER SW




## 1-4. LEVEL DIAGRAM

**Note:** Signal voltages are measured with an ac VTVM and expressed in dB referred to 0.775 V, 1 kHz.



# SECTION 2
# DISASSEMBLY AND REPLACEMENT

**Note:** All screws in this service manual are Phillips type (cross recess type) unless otherwise indicated. (–): slotted head.

## 2-1. BOTTOM PLATE REMOVAL

1. Remove the seven screws shown in Fig. 2-1.

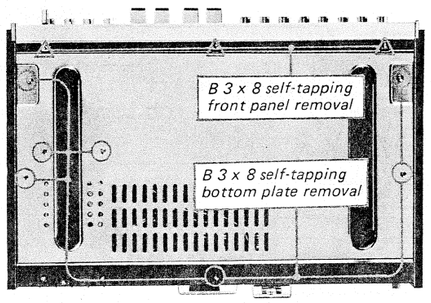



*Fig. 2-1. Bottom view*

## 2-2. FRONT PANEL REMOVAL

1. Remove the two screws at both sides of the wooden case.
2. Remove the botoom plate as described in Procedure 2-1.
3. Remove the three screws from front top and bottom of the front panel as shown in Fig. 2-1 and 2-2.
4. Pull off the TONE and VOLUME control knobs.
5. This frees the front panel with pushbutton.

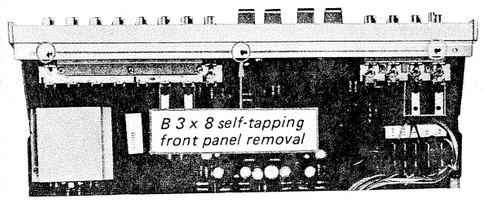



*Fig. 2-2. Front panel removal*

## 2-3. FRONT SUBCHASSIS REMOVAL

1. Remove the front panel as described in Procedure 2-2.
2. Remove the two screws at each side of the front subchassis as shown in Fig. 2-3.
3. Remove the five screws shown in Fig. 2-3.

## 2-4. PUSHBUTTON SWITCH REPLACEMENT

1. Remove the front subchassis as described in Procedure 2-3.
2. With a soldering iron having a soldersucking tip, clean the solder from each lug of the switches and printed circuit board.

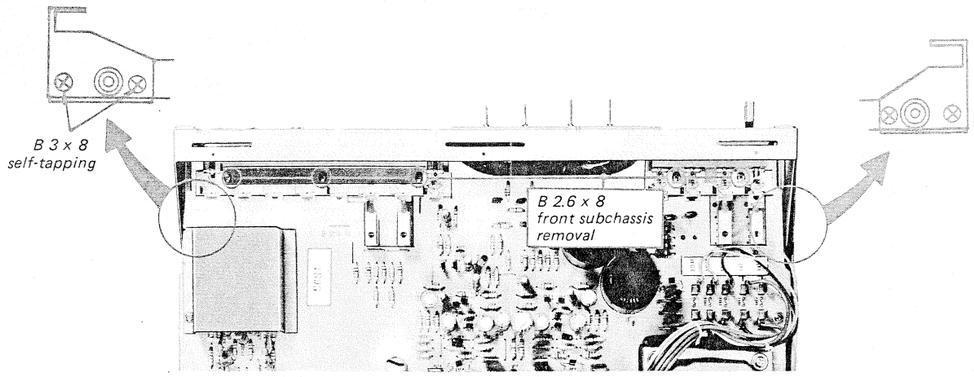
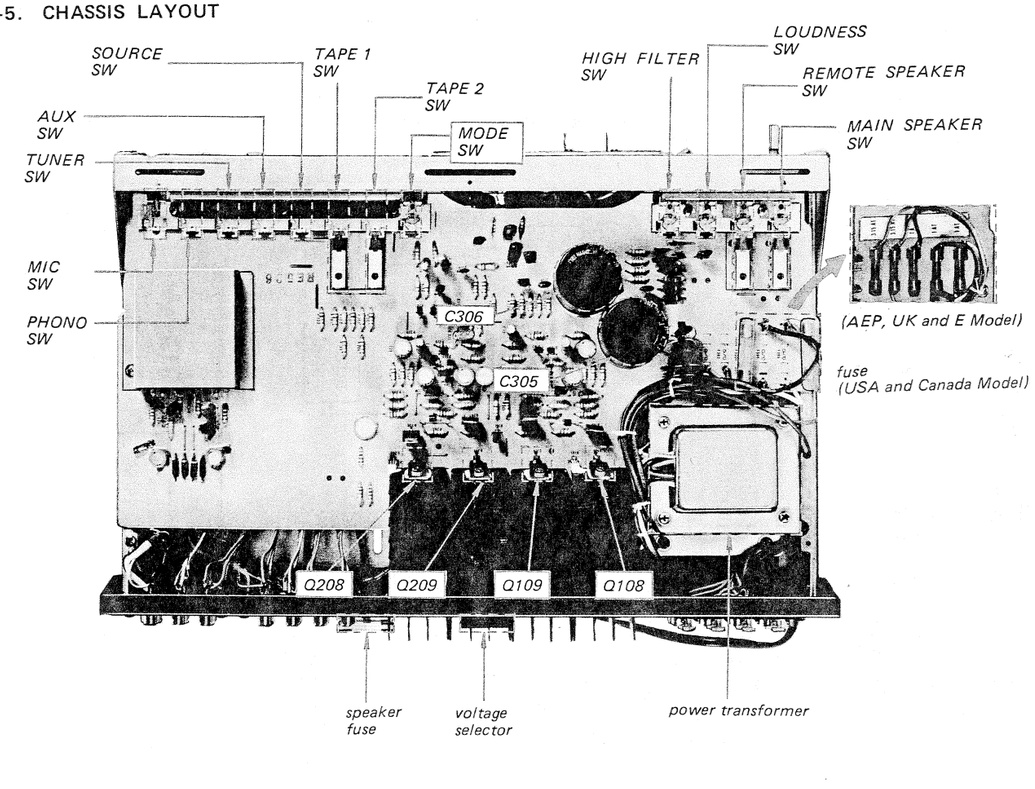



*Fig. 2-3. Front subchassis removal*



## 2-5. CHASSIS LAYOUT



# SECTION 3
# REPACKING

The original shipping carton and packing materials are ideal containers for shipping the unit. However to secure the maximum protection, the amplifier must be repacked in these materials precisely as before as shown in Fig. 3-1.

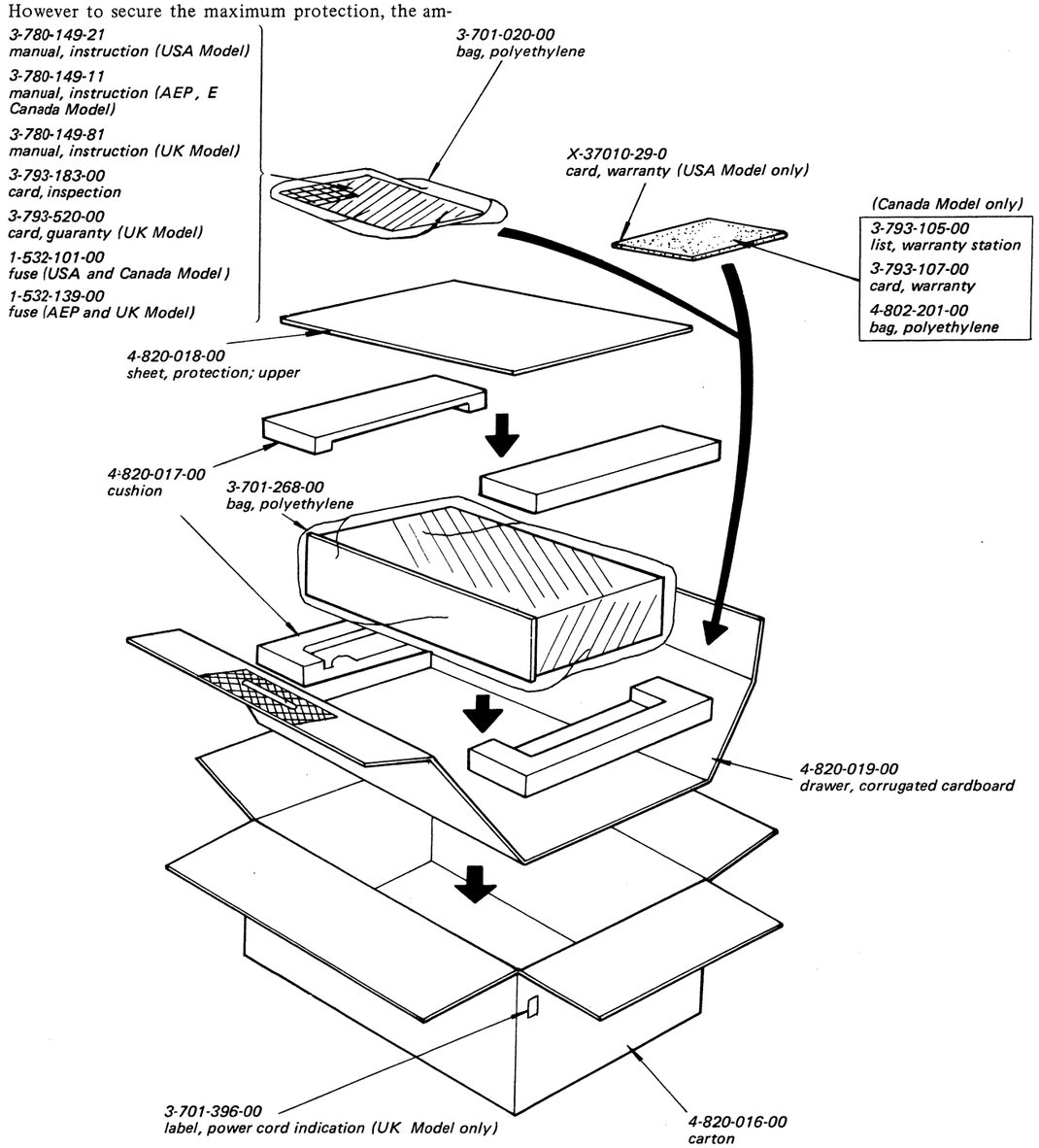



*Fig. 3-1. Repacking*

**Applicable Serial No.**

USA Model . . . . . 800,001 to 804,000
Canada Model. . . . 700,001 to 701,300
AEP Model . . . . . 500,001 to 513,300
UK Model . . . . . 600,001 to 652,500

**Note:** See the supplement supplied with this manual for the sets not having the above serial numbers.



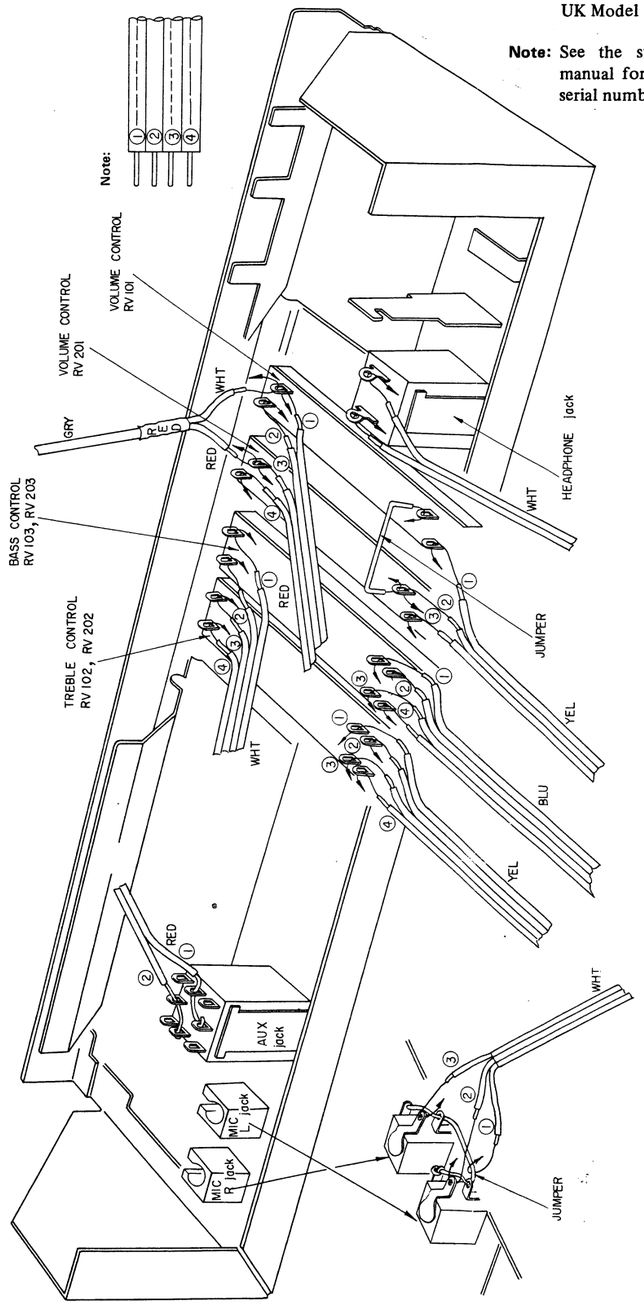
# SECTION 4
# DIAGRAMS

## 4-1. FRONT SUBCHASSIS WIRING DIAGRAM

**Applicable Serial No.**

USA Model . . . . . 800,001 to 804,000
Canada Model. . . . 700,001 to 701,300
AEP Model . . . . . 500,001 to 513,300
UK Model . . . . . 600,001 to 652,500

**Note:** See the supplement supplied with this manual for the sets not having the above serial numbers.



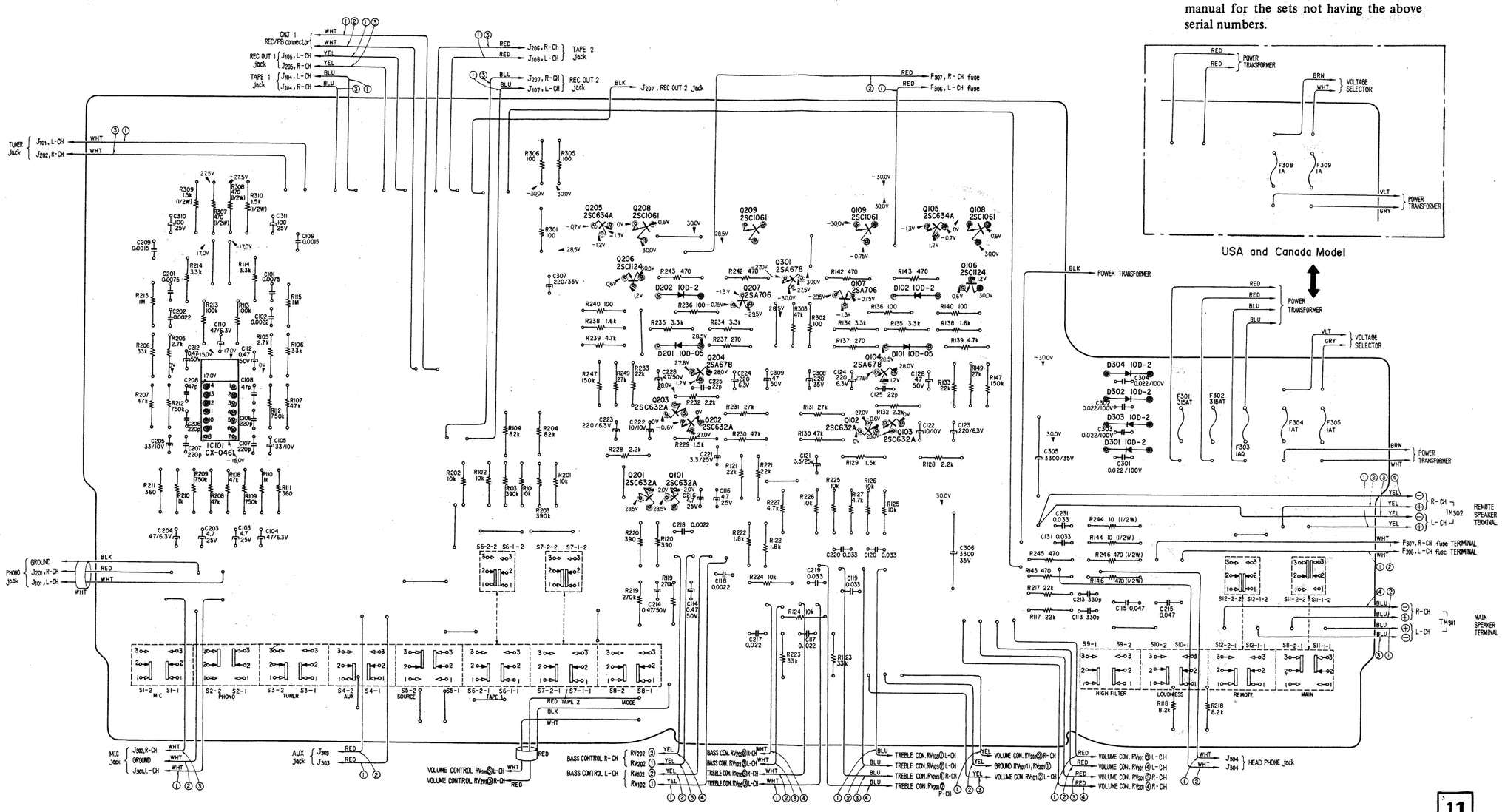
**Applicable Serial No.**

USA Model . . . . . 800,001 to 804,000
Canada Model. . . . 700,001 to 701,300
AEP Model . . . . . 500,001 to 513,300
UK Model . . . . . 600,001 to 652,500

**Note:** See the supplement supplied with this manual for the sets not having the above serial numbers.

## 4-2. MOUNTING DIAGRAM

*– Conductor Side –*



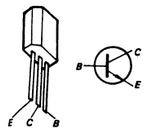

USA and Canada Model



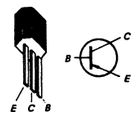




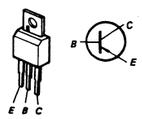




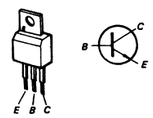

**2SC632**
**2SC634**



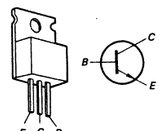

**2SA678**




**2SA706**




**2SC1124**

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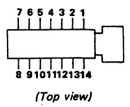
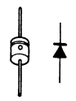
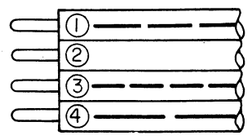



**CX-0461**

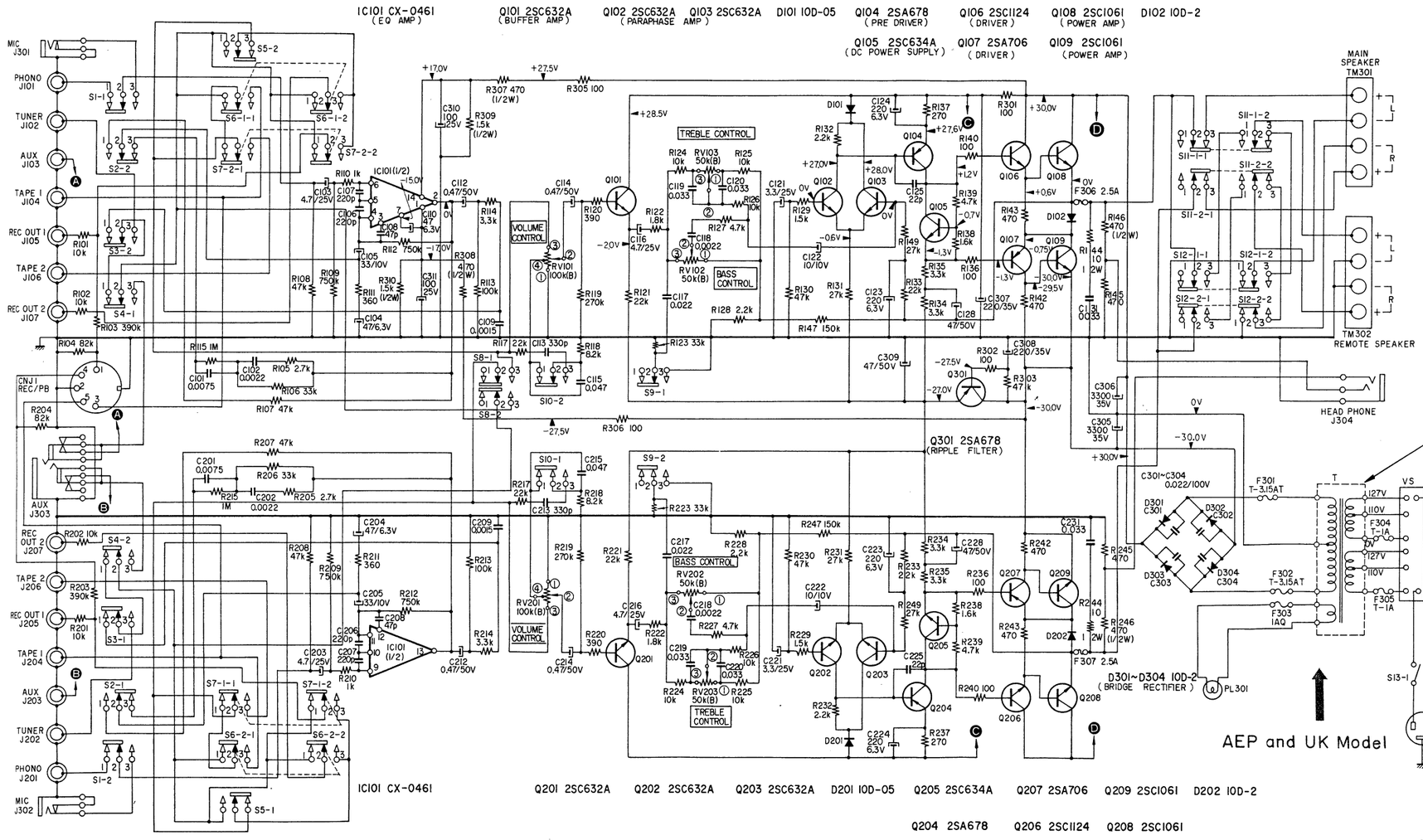


**10D-2**
**10D-05**

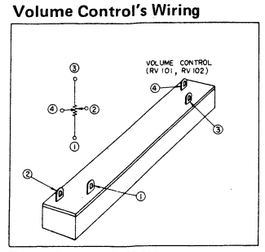



**Note:** Lead wires can be identified by the lines stenciled on them as shown.

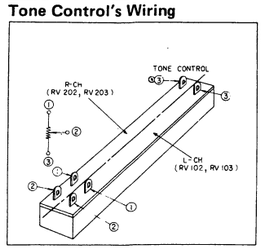
## 4-3. SCHEMATIC DIAGRAM

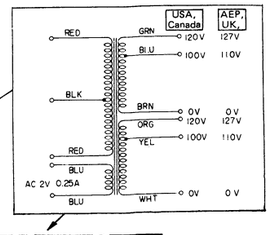



### Volume Control's Wiring




### Tone Control's Wiring




| *Ref. No.* | *Description* | *Position* | *Ref No.* | *Description* | *Position* |
|---|---|---|---|---|---|
| S1, S2 | FUNCTION SW (PHONO-MIC) | PHONO | S8 | MODE SW (STEREO-MONO) | STEREO |
| S3 | FUNCTION SW (TUNER-OFF) | OFF | S9 | HIGH FILTER SW | OFF |
| S4 | FUNCTION SW (AUX-OFF) | OFF | S10 | LOUDNESS SW | OFF |
| S5 | MONITOR SW (TAPE-SOURCE) | SOURCE | S11 | MAIN SPEAKER SW | ON |
| S6 | MONITOR SW (TAPE 1-SOURCE) | SOURCE | S12 | REMOTE SPEAKER SW | OFF |
| S7 | MONITOR SW (TAPE 2-SOURCE) | SOURCE | S13 | POWER SW | OFF |

**Note:** All resistance values are in ohms. k = 1,000 M = 1,000 k.

All capacitance values are in μF except as indicated with p, which means μμF.

All voltages are dc measured with a VOM having 20 k ohms/volt input impedance. No signal in.

Voltage variations may be noted due to normal production tolerances.

**Applicable Serial No.**

USA Model . . . . . 800,001 to 804,000
Canada Model. . . . 700,001 to 701,300
AEP Model . . . . . 500,001 to 513,300
UK Model . . . . . 600,001 to 652,500

**Note:** See the supplement supplied with this manual for the sets not having the above serial numbers.

## MEMO

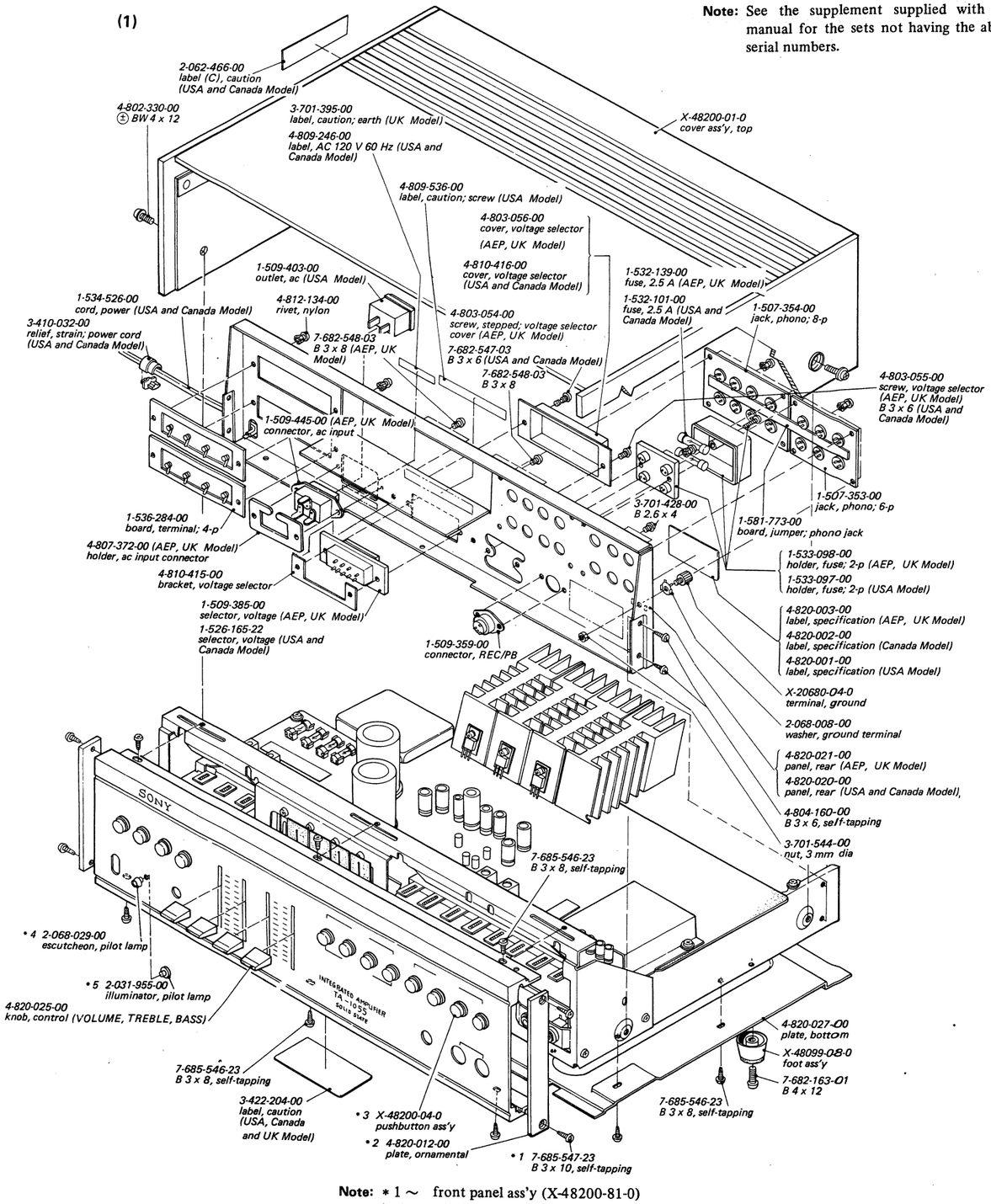


# SECTION 5
# EXPLODED VIEWS

**Applicable Serial No.**

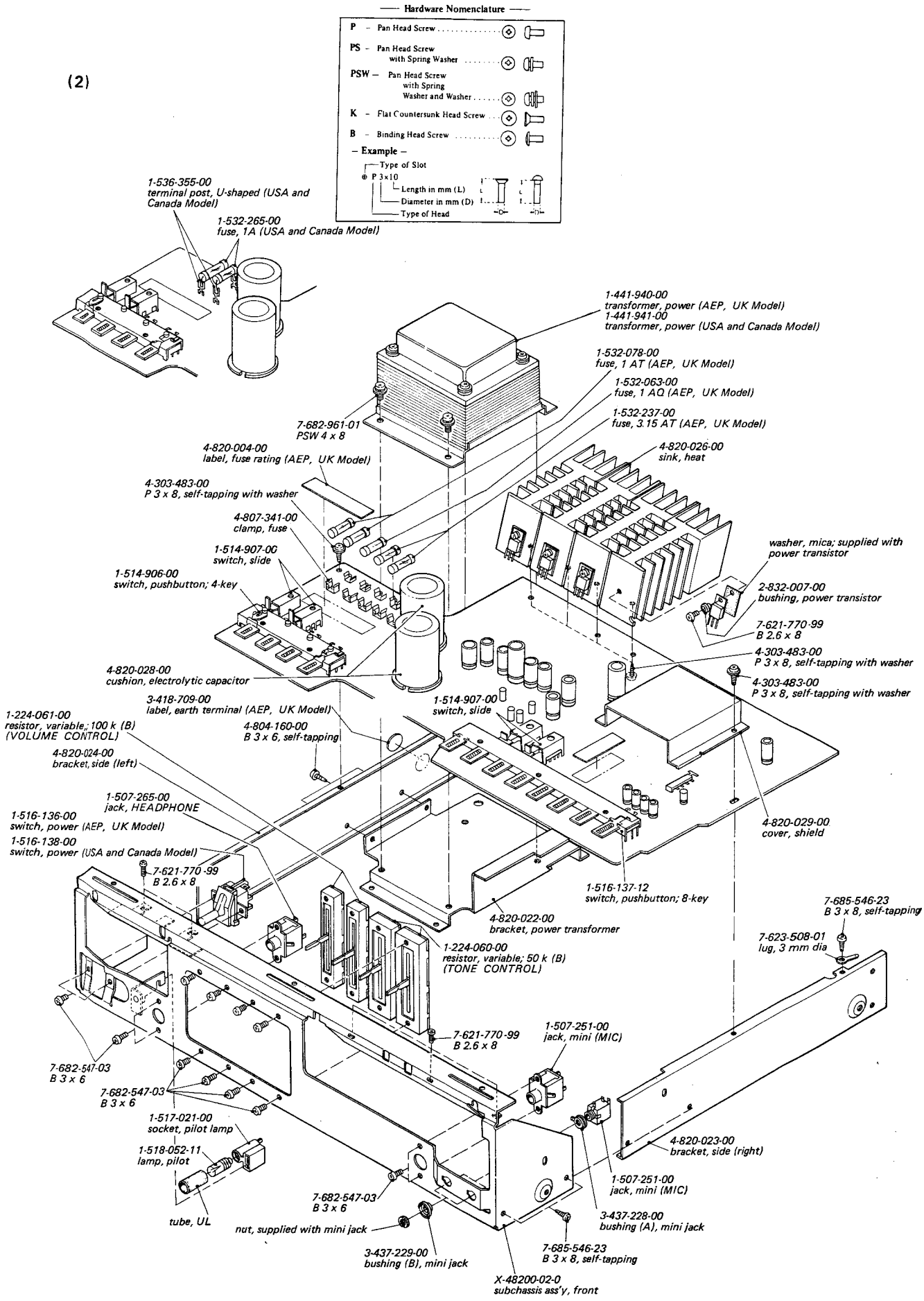
USA Model . . . . . 800,001 to 804,000
Canada Model. . . . 700,001 to 701,300
AEP Model . . . . . 500,001 to 513,300
UK Model . . . . . 600,001 to 652,500

**Note:** See the supplement supplied with this manual for the sets not having the above serial numbers.


(1)
2-062-466-00 label (C), caution (USA and Canada Model)
4-802-330-00 ± BW 4 x 12
3-701-395-00 label, caution; earth (UK Model)
4-809-246-00 label, AC 120 V 60 Hz (USA and Canada Model)
X-48200-01-0 cover ass'y, top
4-809-536-00 label, caution; screw (USA Model)
4-803-056-00 cover, voltage selector (AEP, UK Model)
4-810-416-00 cover, voltage selector (USA and Canada Model)
1-509-403-00 outlet, ac (USA Model)
1-532-139-00 fuse, 2.5 A (AEP, UK Model)
1-532-101-00 fuse, 2.5 A (USA and Canada Model)
1-507-354-00 jack, phono; 8-p
1-534-526-00 cord, power (USA and Canada Model)
4-812-134-00 rivet, nylon
4-803-054-00 screw, stepped; voltage selector cover (AEP, UK Model)
3-410-032-00 relief, strain; power cord (USA and Canada Model)
7-682-548-03 B 3 x 8 (AEP, UK Model)
7-682-547-03 B 3 x 6 (USA and Canada Model)
7-682-548-03 B 3 x 8
4-803-055-00 screw, voltage selector (AEP, UK Model) B 3 x 6 (USA and Canada Model)
1-509-445-00 (AEP, UK Model) connector, ac input
1-507-353-00 jack, phono; 6-p
3-701-428-00 B 2.6 x 4
1-581-773-00 board, jumper; phono jack
1-536-284-00 board, terminal; 4-p
4-807-372-00 (AEP, UK Model) holder, ac input connector
4-810-415-00 bracket, voltage selector
1-533-098-00 holder, fuse; 2-p (AEP, UK Model)
1-533-097-00 holder, fuse; 2-p (USA Model)
1-509-385-00 selector, voltage (AEP, UK Model)
1-526-165-22 selector, voltage (USA and Canada Model)
1-509-359-00 connector, REC/PB
4-820-003-00 label, specification (AEP, UK Model)
4-820-002-00 label, specification (Canada Model)
4-820-001-00 label, specification (USA Model)
X-20680-04-0 terminal, ground
2-068-008-00 washer, ground terminal
4-820-021-00 panel, rear (AEP, UK Model)
4-820-020-00 panel, rear (USA and Canada Model)
4-804-160-00 B 3 x 6, self-tapping
3-701-544-00 nut, 3 mm dia
7-685-546-23 B 3 x 8, self-tapping
SONY
* 4 2-068-029-00 escutcheon, pilot lamp
* 5 2-031-955-00 illuminator, pilot lamp
4-820-025-00 knob, control (VOLUME, TREBLE, BASS)
INTEGRATED AMPLIFIER TA-1055 SOLID STATE
4-820-027-00 plate, bottom
X-48099-08-0 foot ass'y
7-682-163-01 B 4 x 12
7-685-546-23 B 3 x 8, self-tapping
3-422-204-00 label, caution (USA, Canada and UK Model)
* 3 X-48200-04-0 pushbutton ass'y
* 2 4-820-012-00 plate, ornamental
* 1 7-685-547-23 B 3 x 10, self-tapping

**Note:** * 1 ~ front panel ass'y (X-48200-81-0) includes all the parts marked * .

(2)


Hardware Nomenclature
P – Pan Head Screw
PS – Pan Head Screw with Spring Washer
PSW – Pan Head Screw with Spring Washer and Washer
K – Flat Countersunk Head Screw
B – Binding Head Screw
– Example –
Type of Slot
P 3x10
Length in mm (L)
Diameter in mm (D)
Type of Head
1-536-355-00 terminal post, U-shaped (USA and Canada Model)
1-532-265-00 fuse, 1A (USA and Canada Model)
1-441-940-00 transformer, power (AEP, UK Model)
1-441-941-00 transformer, power (USA and Canada Model)
1-532-078-00 fuse, 1 AT (AEP, UK Model)
1-532-063-00 fuse, 1 AQ (AEP, UK Model)
1-532-237-00 fuse, 3.15 AT (AEP, UK Model)
7-682-961-01 PSW 4 x 8
4-820-004-00 label, fuse rating (AEP, UK Model)
4-820-026-00 sink, heat
4-303-483-00 P 3 x 8, self-tapping with washer
4-807-341-00 clamp, fuse
1-514-907-00 switch, slide
1-514-906-00 switch, pushbutton; 4-key
washer, mica; supplied with power transistor
2-832-007-00 bushing, power transistor
7-621-770-99 B 2.6 x 8
4-303-483-00 P 3 x 8, self-tapping with washer
4-820-028-00 cushion, electrolytic capacitor
4-303-483-00 P 3 x 8, self-tapping with washer
3-418-709-00 label, earth terminal (AEP, UK Model)
1-514-907-00 switch, slide
1-224-061-00 resistor, variable; 100 k (B) (VOLUME CONTROL)
4-804-160-00 B 3 x 6, self-tapping
4-820-024-00 bracket, side (left)
1-507-265-00 jack, HEADPHONE
1-516-136-00 switch, power (AEP, UK Model)
1-516-138-00 switch, power (USA and Canada Model)
4-820-029-00 cover, shield
7-621-770-99 B 2.6 x 8
1-516-137-12 switch, pushbutton; 8-key
7-685-546-23 B 3 x 8, self-tapping
4-820-022-00 bracket, power transformer
7-623-508-01 lug, 3 mm dia
1-224-060-00 resistor, variable; 50 k (B) (TONE CONTROL)
7-621-770-99 B 2.6 x 8
1-507-251-00 jack, mini (MIC)
7-682-547-03 B 3 x 6
7-682-547-03 B 3 x 6
1-517-021-00 socket, pilot lamp
1-518-052-11 lamp, pilot
4-820-023-00 bracket, side (right)
1-507-251-00 jack, mini (MIC)
7-682-547-03 B 3 x 6
tube, UL
nut, supplied with mini jack
3-437-228-00 bushing (A), mini jack
3-437-229-00 bushing (B), mini jack
7-685-546-23 B 3 x 8, self-tapping
X-48200-02-0 subchassis ass'y, front

# SECTION 6

# ELECTRICAL PARTS LIST

Applicable Serial No.
USA Model ..... 800,001 and later
Canada Model ... 700,001 and later
AEP Model ..... 500,001 and later
UK Model ..... 600,001 and later
E Model ..... 400,001 and later

Note: Refer to the supplement supplied with this manual.

| Ref. No. | Part No. | Description |
|---|---|---|
| | | **COMPLETE CIRCUIT BOARD** |
| | 8-982-680-29 | Preamp/Power amp/Power supply Board, complete |
| | | **SEMICONDUCTORS** |
| D101(D201) | | diode 10D-05 |
| D102(D202) | | diode 10D-2 |
| D301 | | diode 10D-2 |
| D302 | | diode 10D-2 |
| D303 | | diode 10D-2 |
| D304 | | diode 10D-2 |
| Q101(Q201) | | transistor 2SC632A |
| Q102(Q202) | | transistor 2SC632A |
| Q103(Q203) | | transistor 2SC632A |
| Q104(Q204) | | transistor 2SA678 |
| Q105(Q205) | | transistor 2SC634A |
| Q106(Q206) | | transistor 2SC1124 |
| Q107(Q207) | | transistor 2SA706 |
| Q108(Q208) | | transistor 2SC1061 |
| Q109(Q209) | | transistor 2SC1061 |
| Q301 | | transistor 2SA678 |
| IC101 | | IC CX-0461 |
| | | **TRANSFORMERS** |
| T | 1-441-940-00 | transformer, power (AEP, UK and E Model) |
| | 1-441-941-00 | transformer, power (USA and Canada Model) |
| | | **CAPACITORS** |

All capacitance values are in μF except as indicated with p, which means μμF.

| | | | | | |
|---|---|---|---|---|---|
| C101(C201) | 1-106-022-12 | 0.0075 | ±5 % | 50 V | mylar |
| C102(C202) | 1-106-009-12 | 0.0022 | ±5 % | 50 V | mylar |
| C103(C203) | 1-121-395-11 | 4.7 | | 25 V | electrolytic |
| C104(C204) | 1-121-407-11 | 47 | | 6.3 V | electrolytic |
| C105(C205) | 1-121-402-11 | 33 | | 10 V | electrolytic |
| C106(C206) | 1-102-110-11 | 220 p | ±10 % | 50 V | ceramic |
| C107(C207) | 1-102-110-11 | 220 p | ±10 % | 50 V | ceramic |
| C108(C208) | 1-101-880-11 | 47 p | ±5 % | 50 V | ceramic |
| C109(C209) | 1-106-005-12 | 0.0015 | ±5 % | 50 V | mylar |
| C110 | 1-121-407-11 | 47 | | 6.3 V | electrolytic |
| C111 | | ---------- | | | |
| C112(C212) | 1-121-726-11 | 0.47 | | 50 V | electrolytic |
| C113(C231) | 1-102-820-11 | 330 p | ±5 % | 50 V | ceramic |
| C114(C214) | 1-121-726-11 | 0.47 | | 50 V | electrolytic |
| C115(C215) | 1-105-681-12 | 0.047 | ±10 % | 50 V | mylar |
| C116(C216) | 1-121-395-11 | 4.7 | | 25 V | electrolytic |
| C117(C217) | 1-105-677-12 | 0.022 | ±10 % | 50 V | mylar |
| C118(C218) | 1-105-665-12 | 0.0022 | ±10 % | 50 V | mylar |
| C119(C219) | 1-105-679-12 | 0.033 | ±10 % | 50 V | mylar |
| C120(C220) | 1-105-679-12 | 0.033 | ±10 % | 50 V | mylar |
| C121(C221) | 1-121-392-11 | 3.3 | | 25 V | electrolytic |
| C122(C222) | 1-121-469-11 | 10 | | 10 V | electrolytic |
| C123(C223) | 1-121-419-11 | 220 | | 6.3 V | electrolytic |
| C124(C224) | 1-121-419-11 | 220 | | 6.3 V | electrolytic |
| C125(C225) | 1-102-959-11 | 22 p | ±5 % | 50 V | ceramic |
| C126(C226) | | ---------- | | | |
| C127(C227) | | ---------- | | | |
| C128(C228) | 1-121-411-11 | 47 | | 50 V | electrolytic |
| C129 | | ---------- | | | |
| C130 | | ---------- | | | |
| C131(C231) | 1-105-679-12 | 0.033 | ±10 % | 50 V | mylar |
| C301 | 1-105-717-12 | 0.022 | ±10 % | 100 V | mylar |
| C302 | 1-105-717-12 | 0.022 | ±10 % | 100 V | mylar |
| C303 | 1-105-717-12 | 0.022 | ±10 % | 100 V | mylar |
| C304 | 1-105-717-12 | 0.022 | ±10 % | 100 V | mylar |
| C305 | 1-123-048-11 | 3,300 | | 35 V | electrolytic |
| C306 | 1-123-048-11 | 3,300 | | 35 V | electrolytic |
| C307 | 1-121-261-11 | 220 | | 35 V | electrolytic |
| C308 | 1-121-261-11 | 220 | | 35 V | electrolytic |
| C309 | 1-121-411-11 | 47 | | 50 V | electrolytic |
| C310 | 1-121-416-11 | 100 | | 25 V | electrolytic |
| C311 | 1-121-416-11 | 100 | | 25 V | electrolytic |

**RESISTORS**

All resistance values are in Ω, ±5 %, ¼ W and carbon type unless otherwise indicated.

| | | |
|---|---|---|
| R101(R201) | 1-244-697-11 | 10 k |
| R102(R202) | 1-244-697-11 | 10 k |
| R103(R203) | 1-244-735-11 | 390 k |
| R104(R204) | 1-244-719-11 | 82 k |
| R105(R205) | 1-244-683-11 | 2.7 k |
| R106(R206) | 1-244-709-11 | 33 k |
| R107(R207) | 1-244-713-11 | 47 k |
| R108(R208) | 1-244-713-11 | 47 k |
| R109(R209) | 1-244-742-11 | 750 k |
| R110(R210) | 1-244-673-11 | 1 k |
| R111(R211) | 1-244-662-11 | 360 |
| R112(R212) | 1-244-742-11 | 750 k |
| R113(R213) | 1-244-721-11 | 100 k |
| R114(R214) | 1-244-685-11 | 3.3 k |
| R115(R215) | 1-244-745-11 | 1 M |
| R116(R216) | ---------- | |
| R117(R217) | 1-244-705-11 | 22 k |
| R118(R218) | 1-244-695-11 | 8.2 k |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R119(R219) | 1-244-731-11 | 270 k | | | |
| R120(R220) | 1-244-663-11 | 390 | | | |
| R121(R221) | 1-244-705-11 | 22 k | | | |
| R122(R222) | 1-244-679-11 | 1.8 k | | | |
| R123(R223) | 1-244-709-11 | 33 k | | | |
| R124(R224) | 1-244-697-11 | 10 k | | | |
| R125(R225) | 1-244-697-11 | 10 k | | | |
| R126(R226) | 1-244-697-11 | 10 k | | | |
| R127(R227) | 1-244-689-11 | 4.7 k | | | |
| R128(R228) | 1-244-681-11 | 2.2 k | | | |
| R129(R229) | 1-244-677-11 | 1.5 k | | | |
| R130(R230) | 1-244-713-11 | 47 k | | | |
| R131(R231) | 1-244-707-11 | 27 k | | | |
| R132(R232) | 1-244-681-11 | 2.2 k | | | |
| R133(R233) | 1-244-705-11 | 22 k | | | |
| R134(R234) | 1-244-685-11 | 3.3 k | | | |
| R135(R235) | 1-244-685-11 | 3.3 k | | | |
| R136(R236) | 1-244-649-11 | 100 | | | |
| R137(R237) | 1-244-659-11 | 270 | | | |
| R138(R238) | 1-244-678-11 | 1.6 k | | | |
| R139(R239) | 1-244-689-11 | 4.7 k | | | |
| R140(R240) | 1-244-649-11 | 100 | | | |
| R141(R241) | | ---------- | | | |
| R142(R242) | 1-244-665-11 | 470 | | | |
| R143(R243) | 1-244-665-11 | 470 | | | |
| R144(R244) | 1-202-525-11 | 10 | | ½ W | composition |
| R145(R245) | 1-244-665-11 | 470 | | | |
| R146(R246) | 1-202-565-11 | 470 | | ½ W | composition |
| R147(R247) | 1-244-725-11 | 150 k | | | |
| R148(R248) | | ---------- | | | |
| R149(R249) | 1-244-707-11 | 27 k | | | |
| R301 | 1-244-649-11 | 100 | | | |
| R302 | 1-244-649-11 | 100 | | | |
| R303 | 1-244-713-11 | 47 k | | | |
| R304 | | ---------- | | | |
| R305 | 1-244-649-11 | 100 | | | |
| R306 | 1-244-649-11 | 100 | | | |
| R307 | 1-202-565-11 | 470 | ±5 % | ½ W | composition |
| R308 | 1-202-565-11 | 470 | ±5 % | ½ W | composition |
| R309 | 1-202-577-11 | 1.5 k | ±5 % | ½ W | composition |
| R310 | 1-202-577-11 | 1.5 k | ±5 % | ½ W | composition |
| RV101 (RV201) | 1-224-061-00 | 100 k (B), variable (VOLUME control) | | | |
| RV102 (RV202) | 1-224-060-00 | 50 k (B)/50 k (B) variable (BASS control) | | | |
| RV103 (RV203) | 1-224-060-00 | 50 k (B)/50 k (B) variable (TREBLE control) | | | |

| Ref. No. | Part No. | Description |
|---|---|---|
| | | **SWITCHES** |
| S1 ~ 4 | 1-516-137-12 | switch, pushbutton; 8-key (FUNCTION) |
| S5 ~ 7 | | switch, pushbutton; 8-key (MONITOR) |
| S8 | | switch, pushbutton; 8-key (MODE) |
| S9 | 1-514-906-00 | switch, pushbutton; 4-key (HIGH FILTER) |
| S10 | | switch, pushbutton; 4-key (LOUDNESS) |
| S11 | | switch, pushbutton; 4-key (MAIN SPEAKER) |
| S12 | | switch, pushbutton; 4-key (REMOTE) |
| S13 | 1-516-136-00 | switch, lever/seesaw (POWER) (AEP, UK and E Model) |
| | 1-516-138-00 | switch, lever/seesaw (POWER) (USA and Canada Model) |
| S6-1-2<br>S6-2-2 | 1-514-907-00 | switch, slide (MONITOR) |
| S7-1-2<br>S7-2-2 | 1-514-907-00 | switch, slide (MONITOR) |
| S11-1-2<br>S11-2-2 | 1-514-907-00 | switch, slide (MAIN SPEAKER) |
| S12-1-2<br>S12-2-2 | 1-514-907-00 | switch, slide (REMOTE SPEAKER) |
| | | **MISCELLANEOUS** |
| CNJ1 | 1-509-359-00 | connector, REC/PB |
| CNJ2 | 1-509-445-00 | connector, ac input; 3-p (AEP, UK and E Model only) |
| CNJ3 | 1-509-403-00 | outlet, ac (USA and Canada Model only) |
| CP301 | 1-231-057-00 | encapsulated component (USA and Canada Model only) |
| F301,302 | 1-532-237-00 | fuse, 3.15 AT (AEP, UK and E Model only) |
| F303 | 1-532-063-00 | fuse, 1 AQ (AEP, UK and E Model only) |
| F304,305 | 1-532-078-00 | fuse, 1 AT (AEP, UK and E Model only) |
| F306,307 | 1-532-101-00 | fuse, 2.5 A (USA and Canada Model only) |
| | 1-532-139-00 | fuse, 2.5 A (AEP, UK and E Model only) |
| F308,309 | 1-532-265-00 | fuse, 1 A (USA and Canada Model only) |
| J101 ~ 103 (J201 ~ 203) | 1-507-353-00 | jack, phono; 6-p |
| J104 ~ 107 (J204 ~ 207) | 1-507-354-00 | jack, phono; 8-p |
| J301,302 | 1-507-251-00 | jack, mini (MIC) |
| J303 | 1-507-267-00 | jack, AUX |
| J304 | 1-507-265-00 | jack, HEADPHONE |

| Ref. No. | Part No. | Description |
|---|---|---|
| PL301 | 1-518-052-00 | lamp, pilot |
| TM301,302 | 1-536-284-00 | board, terminal; 4-p |
| VS | 1-509-385-00 | selector, voltage (AEP, UK and E Model) |
| | 1-526-165-22 | selector, voltage (USA and Canada Model) |
| | 1-517-021-00 | socket, pilot lamp |
| | 1-533-097-00 | holder, fuse; 2-p (USA and Canada Model) |
| | 1-533-098-00 | holder, fuse; 2-p (AEP, UK and E Model) |
| | 1-534-526-00 | cord, power (USA and Canada Model) |
| | 1-534-819-00 | cord, power (UK Model) |
| | 1-536-353-00 | terminal post, U-shaped (single) |
| | 1-536-355-00 | terminal post, U-shaped (double) (USA and Canada Model only) |
| | 1-581-773-00 | board, jumper; 14-p phono jack |

9-958-019-01

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# INTEGRATED STEREO AMPLIFIER

# TA-1055

*US, Canadian, AEP, UK and E Model*

# SUPPLEMENT

No. 1
November, 1973

**Subject: Modification of TA-1055**

TA-1055 (USA, Canada, AEP, and UK Model) has been modified. This supplement contains revised diagrams and the changed and additional electrical parts list.
File this supplement with TA-1055 Service Manual (USA, Canada, AEP, UK and E Model).

**Note:** E Model applies to this supplement from the sets with the serial number 400,001

The existing TA-1055 Service Manual (USA, Canada, AEP, UK and E Model) is valid except the followings:

| Page* | Section | Description |
|---|---|---|
| 9 | 3 | REPACKING |
| 10 | 4-1 | Front Subchassis Wiring Diagram |
| 11 | 4-2 | Mounting Diagram |
| 13 | 4-3 | Schematic Diagram |
| 16 | 5 | EXPLODED VIEWS (1) |
| 17 | 5 | EXPLODED VIEWS (2) |
| 18 | 6 | ELECTRICAL PARTS LIST▲ |

* Pages in TA-1055 Service Manual (USA, Canada, AEP, UK and E Model)

▲ Parts which are listed in TA-1055 Service Manual but not mentioned in this supplement remain valid.

**Applicable Serial Number:**

USA Model . . . . . No. 804,001 and later
Canada Model . . . . . No. 701,301 and later
AEP Model . . . . . No. 513,301 and later
UK Model . . . . . No. 652,501 and later
E Model . . . . . No. 400,001 and later

SONY®
SERVICE MANUAL

TA-1055

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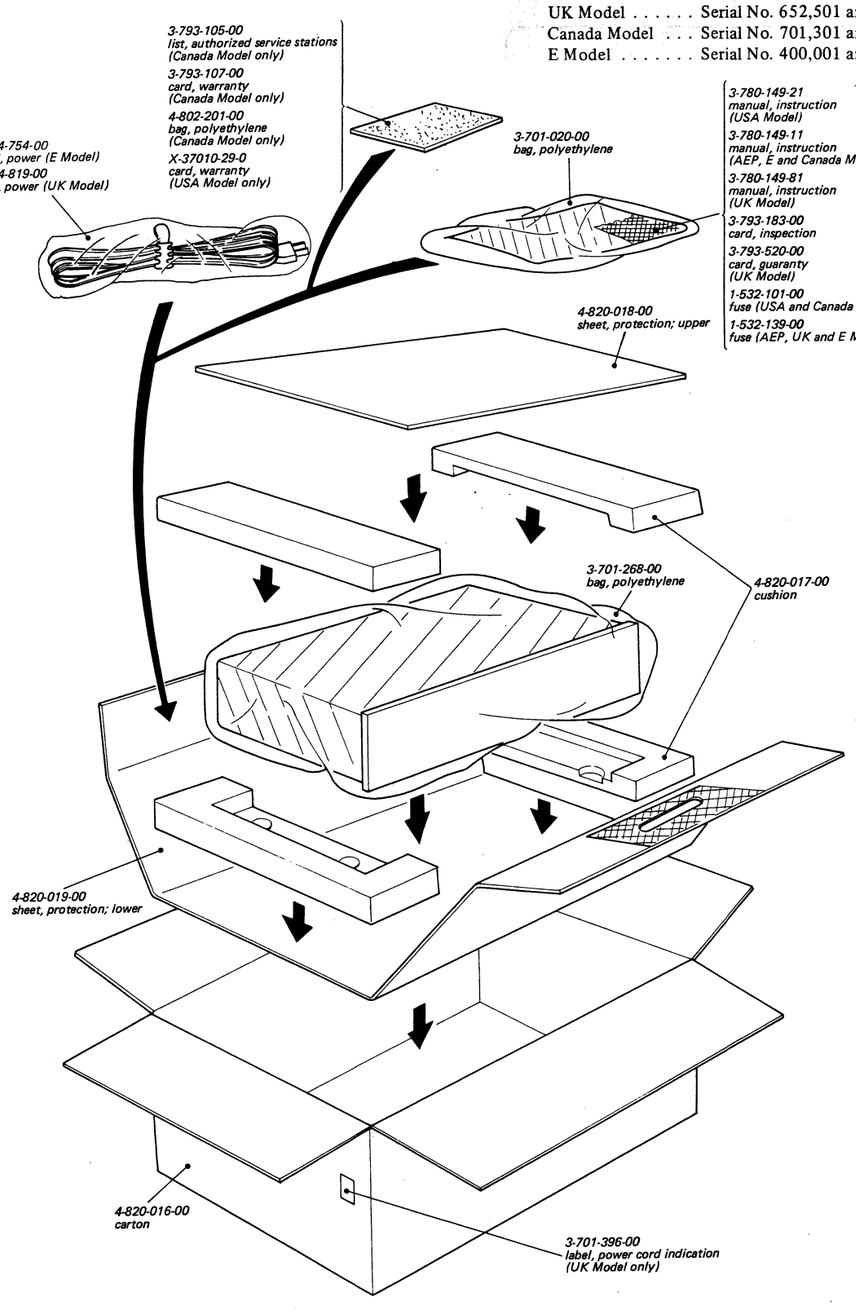
# SECTION 1
# REPACKING

The original shipping carton and packing materials are ideal containers for shipping the unit. For the maximum protection, the amplifier must be repacked in these materials precisely as before as shown in the figure below.

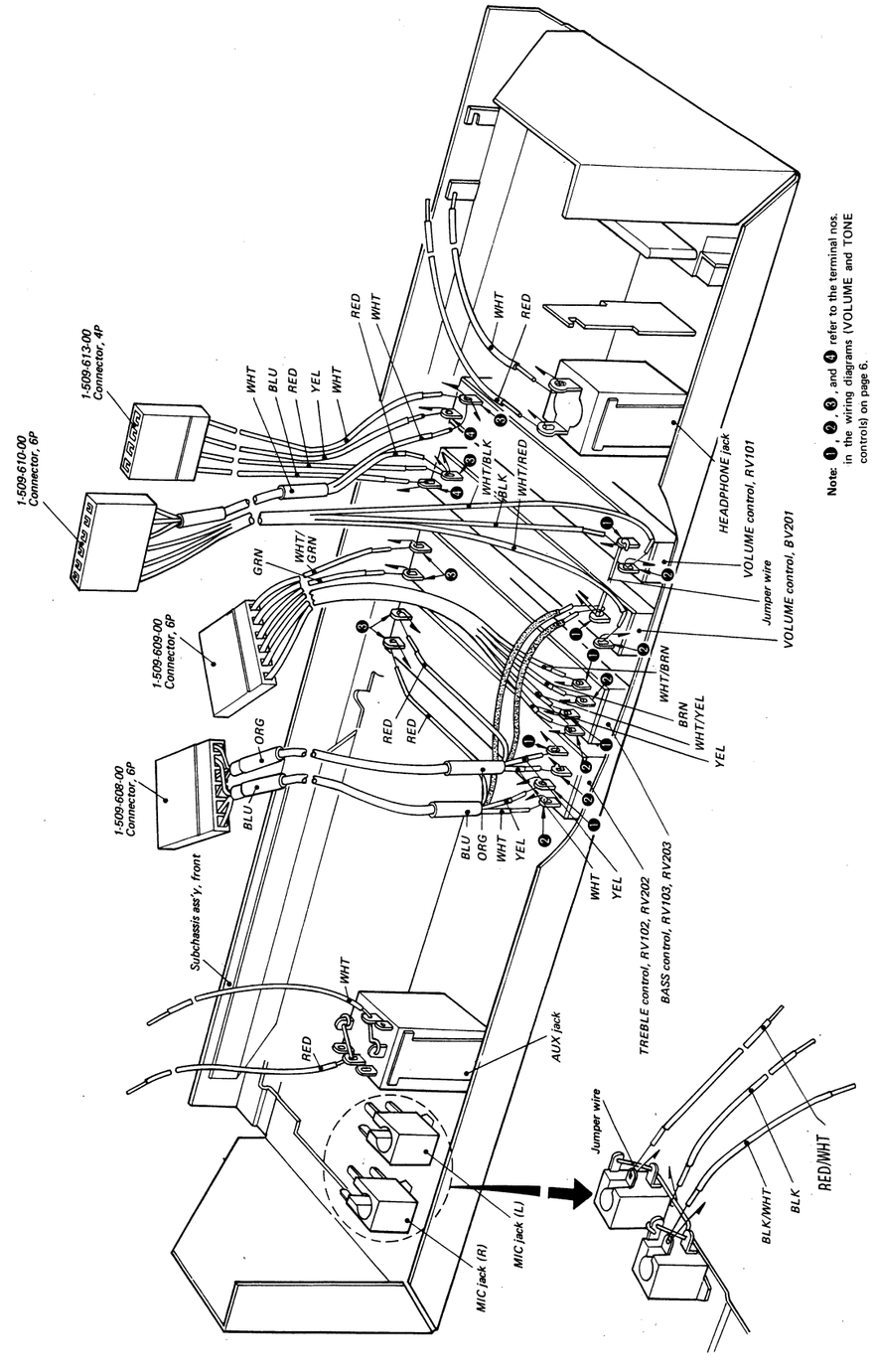
**Note:** USA Model . . . . . Serial No. 804,001 and later
AEP Model . . . . . Serial No. 513,301 and later
UK Model . . . . . Serial No. 652,501 and later
Canada Model . . . Serial No. 701,301 and later
E Model . . . . . Serial No. 400,001 and later





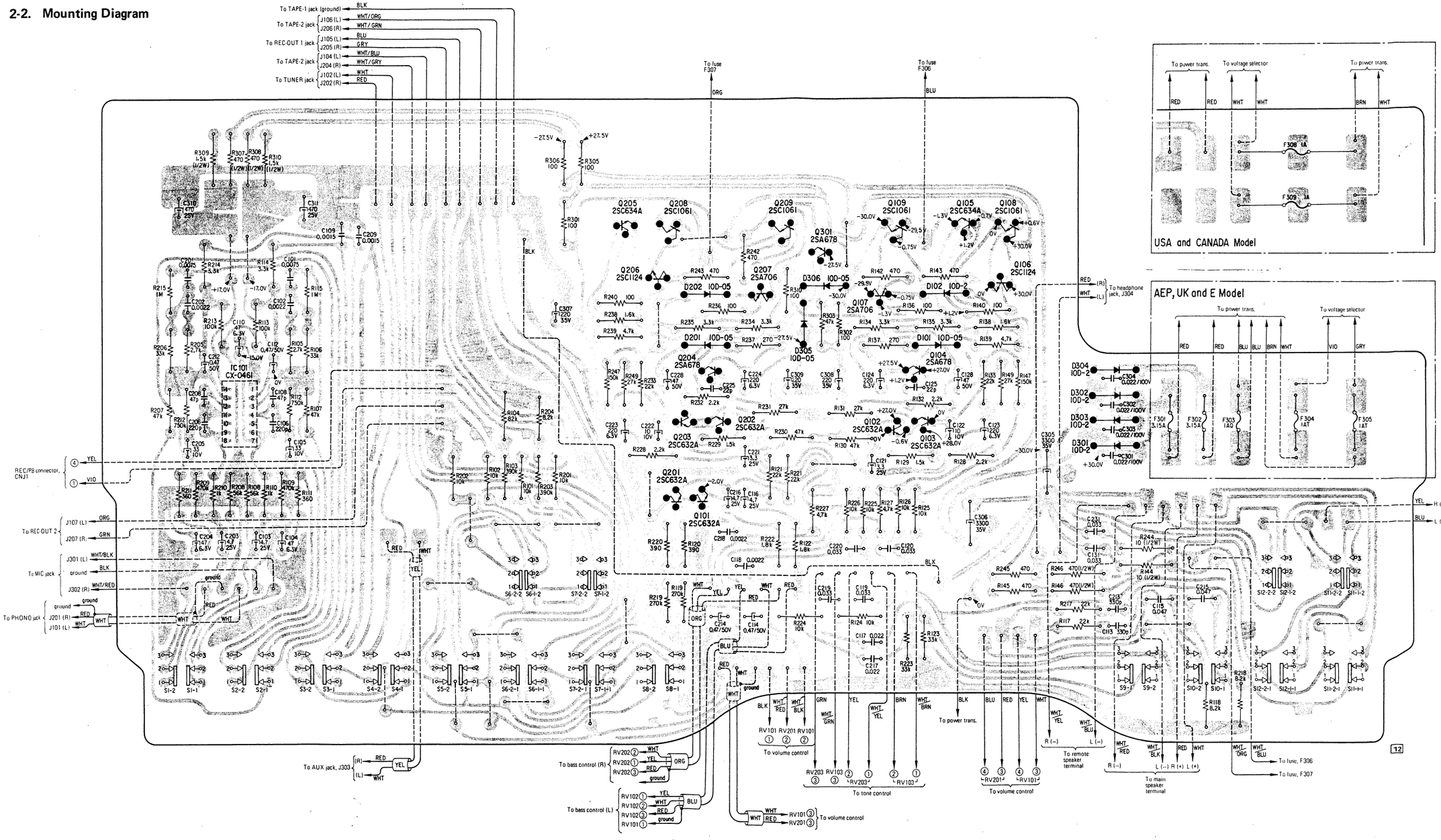

# SECTION 2
# DIAGRAMS

**2-1. Front Subchassis Wiring Diagram**

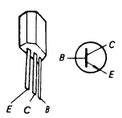



Note: ❶, ❷, ❸, and ❹ refer to the terminal nos. in the wiring diagrams (VOLUME and TONE controls) on page 6.

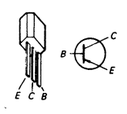
## 2-2. Mounting Diagram



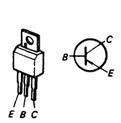

2SC632A
2SC634A



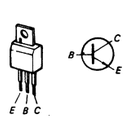

2SA678



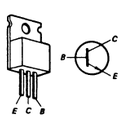

2SA706



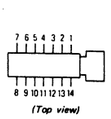

2SC1124



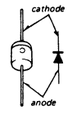

2SC1061



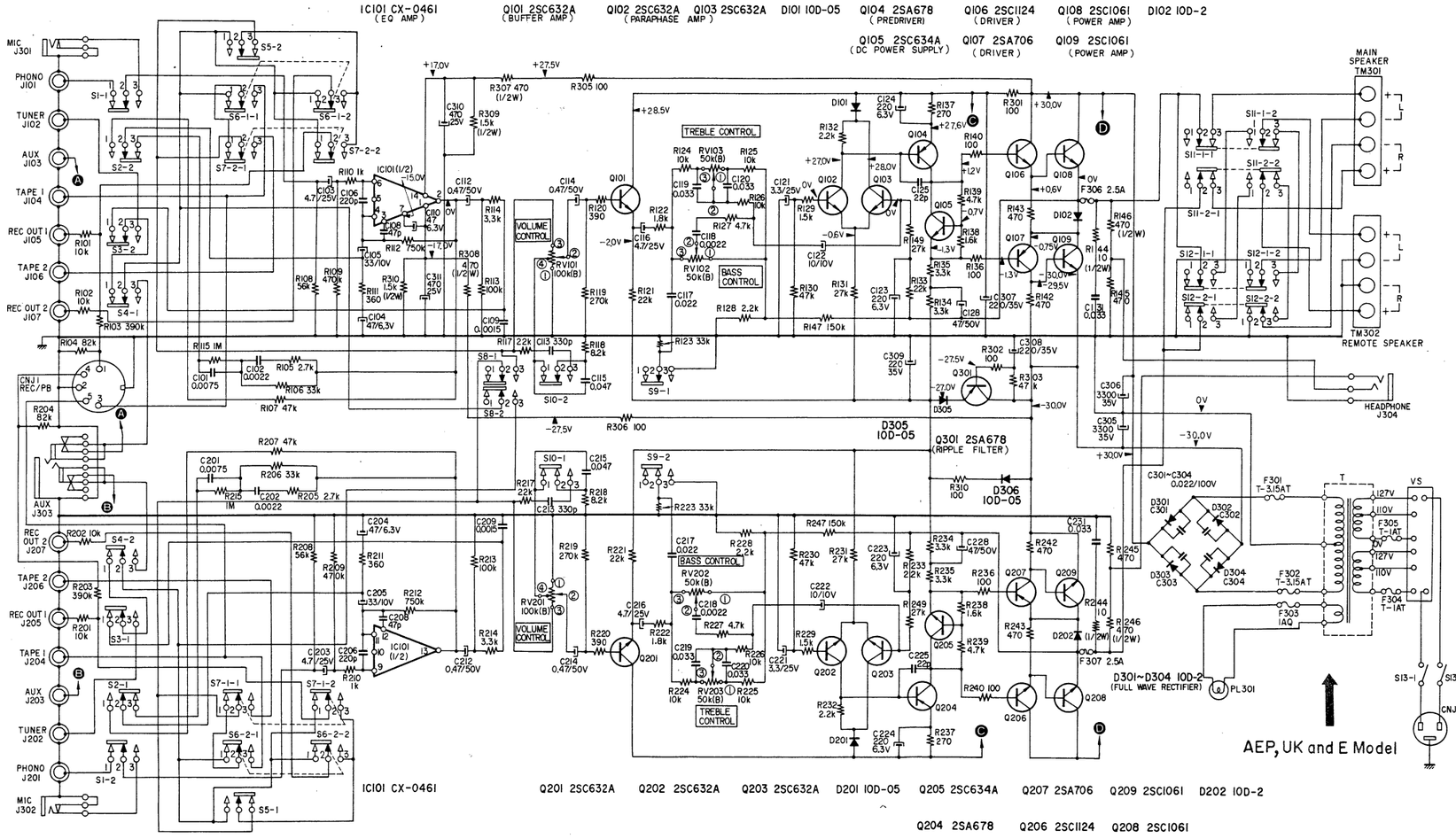

CX-0461



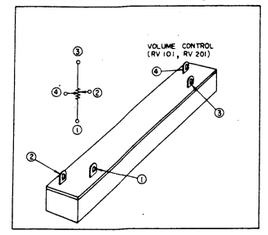

10D-2
10D-05



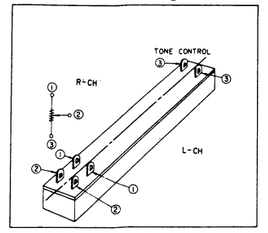
## 2-3. Schematic Diagram



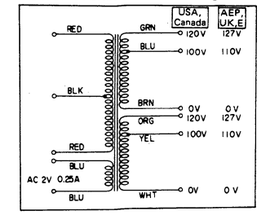

### VOLUME Control Wiring




### TONE Control Wiring




### Power Transformer Wiring




| *Ref. No.* | *Description* | *Position* | *Ref. No.* | *Description* | *Position* |
|---|---|---|---|---|---|
| S1, S2 | FUNCTION SW (PHONO-MIC) | PHONO | S8 | MODE SW (STEREO-MONO) | STEREO |
| S3 | FUNCTION SW (TUNER ON/OFF) | OFF | S9 | HIGH FILTER SW | OFF |
| S4 | FUNCTION SW (AUX ON/OFF) | OFF | S10 | LOUDNESS SW | OFF |
| S5 | MONITOR SW (TAPE-SOURCE) | SOURCE | S11 | MAIN SPEAKER SW | ON |
| S6 | MONITOR SW (TAPE 1-SOURCE) | SOURCE | S12 | REMOTE SPEAKER SW | OFF |
| S7 | MONITOR SW (TAPE 2-SOURCE) | SOURCE | S13 | POWER SW | OFF |

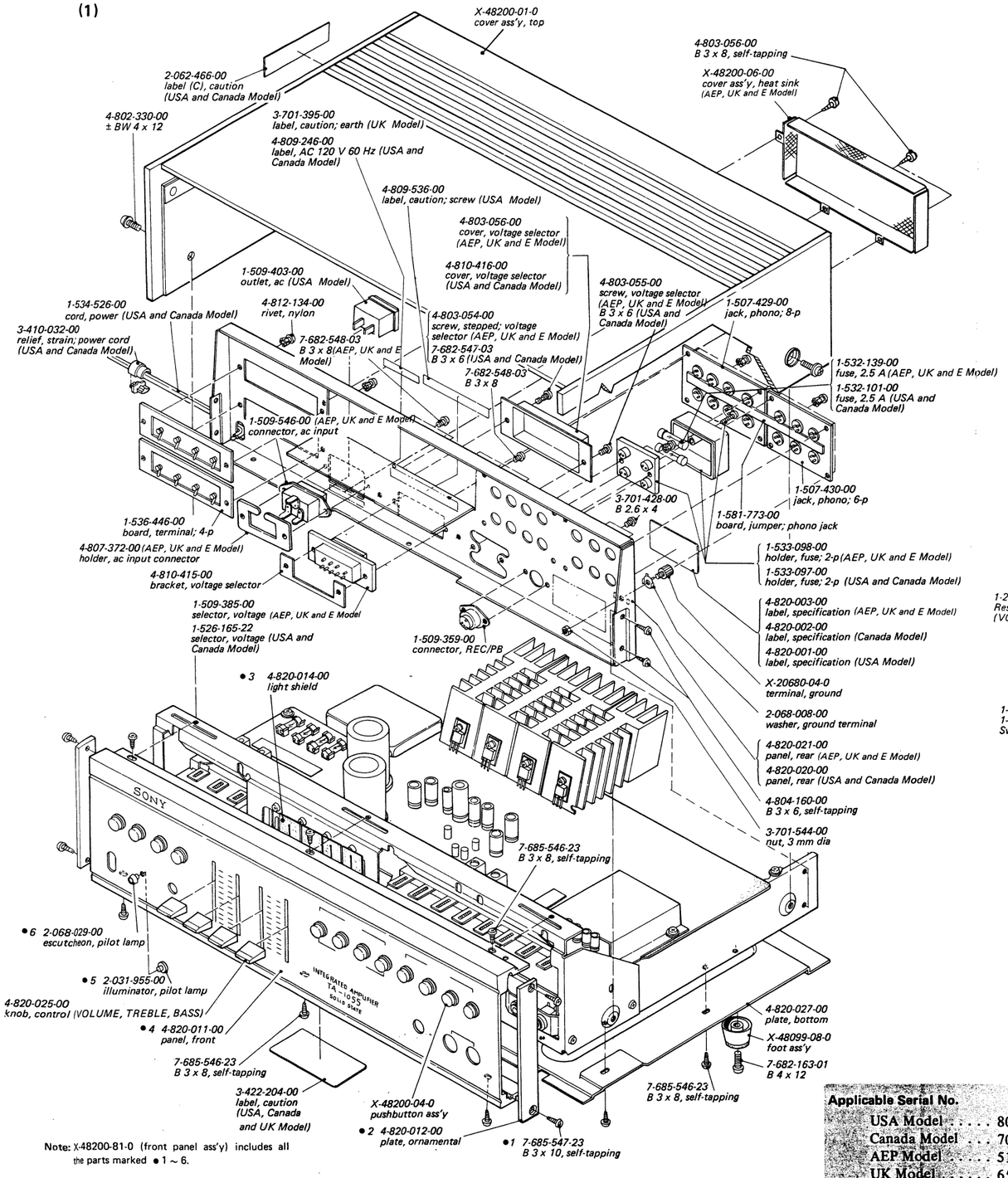
**Note:** All resistance values are in ohms. k = 1000, M = 1000 k.
All capacitance values are in μF except as indicated with p, which means μμF.
All voltages are dc measured with a VOM having 20 k ohms/volt input impedance. No signal in.
Voltage variations may be noted due to normal production tolerances.

**Applicable Serial No.**

| | |
|---|---|
| USA Model | 804,001 and later |
| Canada Model | 701,301 and later |
| AEP Model | 513,301 and later |
| UK Model | 652,501 and later |
| E Model | 400,001 and later |

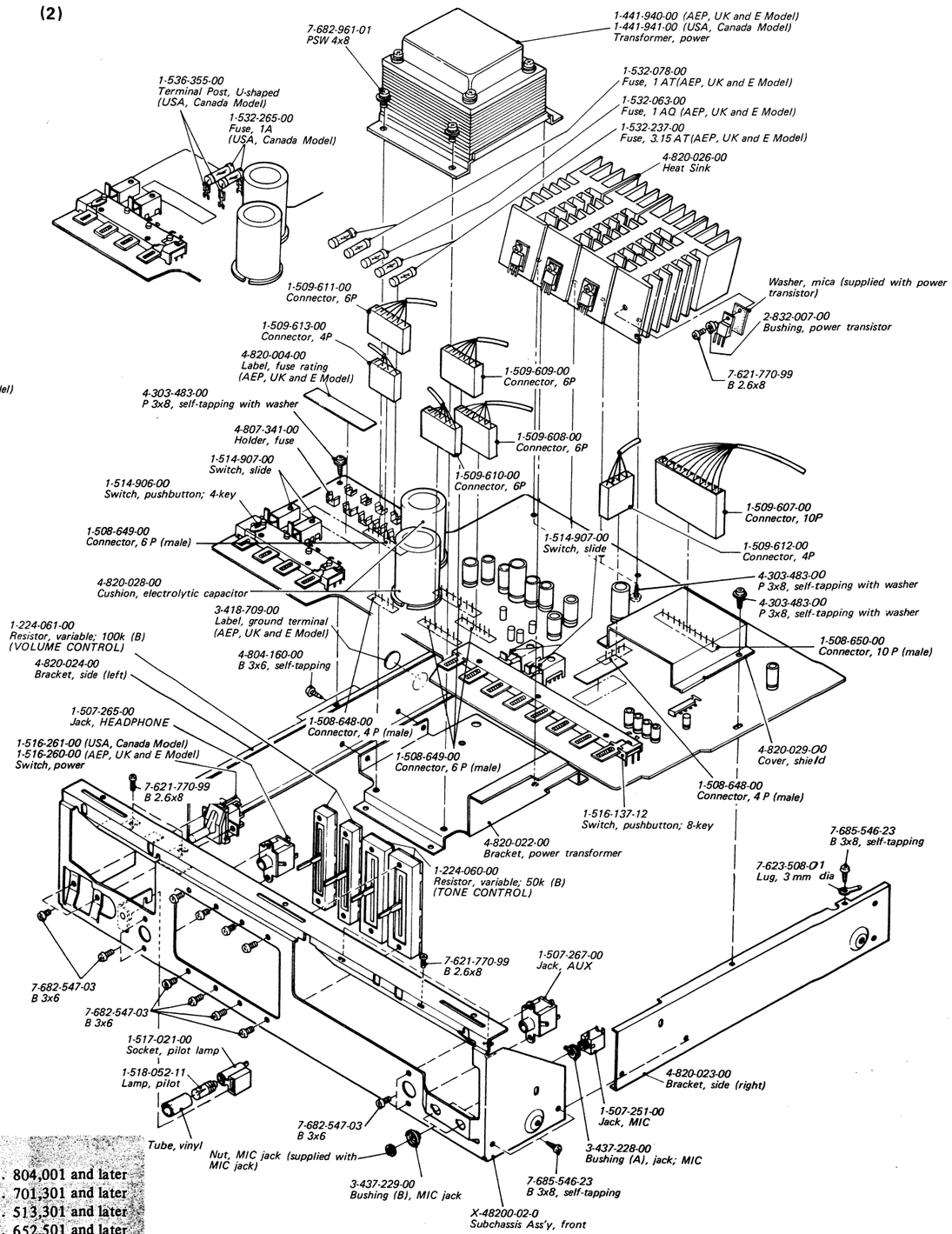
# SECTION 3
# EXPLODED VIEWS

(1)




Note: X-48200-81-0 (front panel ass'y) includes all the parts marked • 1 ~ 6.

(2)




| Applicable Serial No. | |
|---|---|
| USA Model | 804,001 and later |
| Canada Model | 701,301 and later |
| AEP Model | 513,301 and later |
| UK Model | 652,501 and later |
| E Model | 400,001 and later |

# SECTION 4

# ELECTRICAL PARTS LIST

## 4-1. Changed Electrical Parts

| | *Ref. No.* | *Former Part No.* | *New Part No.* | *Description of New Parts* |
|---|---|---|---|---|
| COMPLETE CIRCUIT BOARD* | | 8-982-680-29 | A-4404-001-A | Preamp/Power amp/Power supply Board (USA and Canada Model) |
| | | | A-4404-002-A | Preamp/Power amp/Power supply Board (AEP, UK and E Model) |
| CAPACITORS | C107 (C207) | 1-102-110-11 | ---------- | – deleted – |
| | C305 | 1-123-048-11 | 1-123-118-11 | 3,300 μF 35 V electrolytic |
| | C306 | 1-123-048-11 | 1-123-118-11 | 3,300 μF 35 V electrolytic |
| | C307 | 1-121-261-11 | 1-121-063-11 | 220 μF 35 V electrolytic |
| | C308 | 1-121-261-11 | 1-121-063-11 | 220 μF 35 V electrolytic |
| | C309 | 1-121-411-11 | 1-121-063-11 | 220 μF 35 V electrolytic |
| | C310 | 1-121-416-11 | 1-121-733-11 | 470 μF 25 V electrolytic |
| | C311 | 1-121-416-11 | 1-121-733-11 | 470 μF 25 V electrolytic |
| RESISTORS | R108 (R208) | 1-244-713-11 | 1-244-715-11 | 56 k |
| | R109 (R209) | 1-244-742-11 | 1-244-737-11 | 470 k |
| SWITCHES | S13 | 1-516-136-00 | 1-516-260-00 | switch, lever/seesaw, POWER (AEP, UK and E Model) |
| | | 1-516-138-00 | 1-516-261-00 | switch, lever/seesaw; POWER (USA and Canada Model) |
| MISCELLANEOUS | CNJ2 | 1-509-445-00 | 1-509-546-00 | connector, ac input; 3 p (AEP, UK and E Model only) |
| | J101, J103 (J201, J203) | 1-507-353-00 | 1-507-430-00 | jack, phono; 6 p |
| | J104, J107 (J204, J207) | 1-507-354-00 | 1-507-429-00 | jack, phono; 8 p |
| | TM301, TM302 | 1-536-284-00 | 1-536-446-00 | board, terminal; 4 p |

* The former and the new circuit boards are not interchangeable.

## 4-2. Additional Electrical Parts

| *Part No.* | *Description* |
|---|---|
| 1-508-648-00 | connector, 4 P (male) |
| 1-508-649-00 | connector, 6 P (male) |
| 1-508-650-00 | connector, 10 P (male) |
| 1-509-607-00 | connector, 10 P; INPUT (female) |
| 1-509-608-00 | connector, 6 P; TREBLE (female) |
| 1-509-609-00 | connector, 6 P; BASS (female) |
| 1-509-610-00 | connector, 6 P; VOLUME (female) |
| 1-509-611-00 | connector, 6 P; SPEAKER (female) |
| 1-509-612-00 | connector, 4 P; REC OUT (female) |
| 1-509-613-00 | connector, 4 P; LOUDNESS (female) |
| 1-534-819-00 | cord, power (UK Model only) |

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